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| 10/023,682      | 12/18/2001  | Shih-Ping Liou       | 2000P09106 US01     | 3469             |

7590 08/11/2005

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| EXAMINER |
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BAE, JI H

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| ART UNIT | PAPER NUMBER |
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2115

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/023,682

Applicant(s)

LIOU, SHIH-PING ET AL.

Examiner

Ji H. Bae

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                           |

### **DETAILED ACTION**

The prior office action (which was written by a different examiner) indicated allowable subject matter in claims 9-16. However, the previous examiner failed to make note of numerous errors present in the claims which would constitute grounds for rejection under 35 U.S.C. 112. As such, the claims in present form are not allowable.

A telephone interview was conducted on August 4, 2005 with Donald B. Paschburg, attorney for the applicants, to discuss the aforementioned claims and to seek approval for an examiner's amendment. Applicant's attorney requested an office action to make record of the pertinent issues. Additionally, approval for examiner's amendment was not granted.

### ***Response to Arguments***

Applicant's arguments with respect to claims 17 and 18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

The disclosure is objected to because of the following informalities: there appears to be a typographical error on page 25, line 12.

Applicant's specification states:

"The method determines whether the **current roundtrip delay is greater than the new threshold 806**. **If so**, the method determines whether thirty round-trip delays have been determined 811. Upon determining thirty round-trip delays the method enters a synchronization routine. The method may take over from another routine. If thirty delays have not been determined the method determines a current round-trip delay and an offset 804. Upon

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determining that the current **threshold is not greater than the new threshold** 806, the method determines...”

Applicant points to Fig. 8 as a reference for the aforementioned section. Based on the figure and the context of applicant's disclosure, examiner believes that applicant intended the result of step 806 to determine:

- 1) if the current round-trip delay is greater than the new threshold;
- 2) if the current round-trip delay is not greater than the new threshold.

Additionally, it is noted that claim 9 borrows the erroneous language from the aforementioned section of applicant's disclosure (see claim 9, line 12).

Appropriate correction is required.

### ***Claim Objections***

Claims 17 and 18 are objected to because of the following informalities:

Regarding claim 17, there appears to be a typographical error in lines 3 and 6:

“...request message comprising a **time** current local time of the first processor...” [line 3];

“...sends a sync-response message [missing preposition] the first processor...” [line 6].

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 18, in lines 1 and 2 applicant has recited:

"The system of claim 17, wherein the **second** processor **receives** the sync-response message..."

The relevant section of applicant's disclosure is found on pages 16 and 17. Claim 18, which appears to be based on applicant's teachings found on pages 16 and 17, differs from the disclosure with regards to the second processor receiving the sync-response message. The corresponding section of applicant's disclosure would seem to indicate that the second processor **sends** the sync-response message.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "the new threshold" in lines 8-10, 12, and 13. There is insufficient antecedent basis for this limitation in the claim. It is noted that applicant has previously recited a "new **roundtrip-delay** threshold" in line 7.

Claim 9 recites "an offset" in line 15. It is unclear whether this limitation is a new offset, or a reference to the previously recited offsets in lines 5 and 13.

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Regarding claim 10, applicant's language renders the scope of the claim indefinite. In particular, applicant has recited that the "probability of the round-trip delay being greater than the roundtrip-delay threshold is **about** 0.5 and a probability of the round-trip delay being less than the roundtrip-delay threshold is **about** 0.5." The use of about fails to clearly and unambiguously limit the scope of the claim.

Claim 11 recites the limitation "the step of determining whether thirty round-trip delays have been determined" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. The parent claim does not recite such a step; claim 9 only recites a step of "determining whether a desired number of round-trip delays have been determined."

Claim 12 is rejected on the same grounds as claim 11. Additionally, claim 12 recites a step of "determining a current round-trip delay and an offset" in lines 2 and 3. Applicant has previously recited such a step in line 5 of claim 9, and has not further clarified whether the limitation recited in claim 12 is a new step, or a reference to the step previously recited. Claim 14 is also rejected on this basis.

Claim 15 is rejected on the same grounds as claims 12 and 14 (see line 19). Additionally, claim 15 recites "the number of offsets" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is noted that applicant has previously recited a "number of measured offsets" in line 4.

Claim 17 recites the limitation "the server" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "a current local time" in lines 2 and 3. It is unclear whether this is a new limitation, or a reference to a previously recited limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Voth, U.S. Patent No. 6,199,169 B1, in view of Beardsley et al., U.S. Patent No. 5,471,631.

Regarding claim 17, Voth teaches a system for synchronizing distributed processors comprising [Fig. 6]:

a first processor [master node, Fig. 6] connected to a network, wherein the first processor sends a sync-request message comprising a current local time of the first processor [SYNC message and first time stamp, col. 6, lines 22-30]; and

a second processor [slave node, Fig. 6] connected to the network and connected to the first processor via the network, wherein the second processor receives the sync-request message, and stores a time of arrival of the sync-request message and sends a sync-response message to the first processor, wherein the sync-response message comprises the current local time of the first processor and the time of arrival of the sync-request message [second time stamp, col. 6, lines 31-37].

Voth does not teach that the sync-response message comprises a current local time (distinct from the time of arrival) of the second processor.

Beardsley teaches a method of updating a time stamp to account for processing delays in a host prior to sending the time stamp [col. 9, lines 14-35].

It would have been obvious to one of ordinary skill in the art to modify Voth by including an additional time stamp that contains the current local time of the second processor just before

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sending the sync message, such as in a manner taught by Beardsley. Both Voth and Beardsley teach systems for synchronizing distributed processors. The teachings of Beardsley would improve the system of Voth by compensating for processing delays between the time the sync-request message is received by the second processor and the time the sync-response message is sent by the second processor.

Regarding claim 18, the combination of Voth with Beardsley teaches that the first processor receives the sync-response message and stores the time of arrival of the sync-request message and the current local time of the second processor, and further stores a time of arrival of the sync-response [Voth, third time stamp, col. 6, lines 38-43].

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Shibata, U.S. Patent No. 5,822,317;

Premarlani, U.S. Patent No. 5,958,060;

Bagchi et al., U.S. Patent No. 6,882,634 B2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

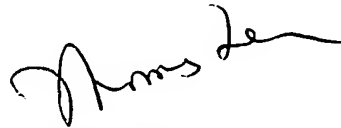
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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